BLAST Basic Local Alignment Search Tool

Job Title: Nucleotide sequence (21 letters)

· Your search parameters were adjusted to search for a short input sequence.

Please, try our new design!

BLASTN 2.2.18+

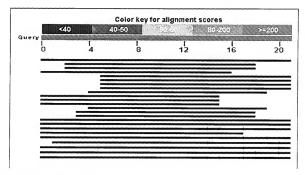
Reference: Stephen F. Altechul, Thomas L. Madden, Alejandro A. Schäffer, Jinghui Zhang, Zheng Zhang, Webb Miller, and David J. Lipman (1997), "Gapped BLAST and PSI-BLAST: a new generation of protein database search programs", Nucleic Acids Res. 25:3389-3402. RTD: 9MCHHWH3015 Database: human build 36.3 reference assembly genomic acaffolds 49, 942 sequences; 5,818,011.736 total letters.

Genome View Show positions of the BLAST hits in the human genome using the Entrez Genomes MapViewer

Query= Length=21

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Distribution of 1401 Blast Hits on the Query Sequence



NCBI Blast:Nu	cleotide sequence (21 letters) USSN 10/738,413	EXHIBIT 6	Page 2 of 11

Legend for links to other resources: Williams BGBO GGene Structure Map

Sequences producing significant alignments:

(Click headers to sort columns)

gi 113722118 NM_000372.4	Homo sapiens tyrosinase (oculocutaneous albinism IA) (TYR), mRNA	42.1	42.1	100%	0.005	100%	G
gi 148806860 NR_003571.1	Homo sapiens protein (peptidylprolyl cis/trans isomerase) NIMA-interacting, 4 (parvulin) pseudogene (LOC728758) on chromosome 15	32.2	32.2	76%	4.7	100%	GM
gi 4809273 NM_001154.2	Homo sapiens annexin A5 (ANXA5) mRNA	, 32.2	32.2	76%	4.7	100%	a
gi 14150142 NM_032347.1	Homo sapiens zinc finger protei 397 (ZNF397), mRNA	n 32.2	32.2	76%	4.7	100%	
gi 65508003 NM_024426.3	Homo sapiens Wilms tumor 1 (WT1), transcript variant D, mRNA	32.2	32.2	76%	4.7	100%	G.
gi 65507907 NM_024425.2	Homo sapiens Wilms tumor 1 (WT1), transcript variant C, mRNA	32.2	32.2	76%	4.7	100%	G .
gi 65507816 NM_024424.2	Homo sapiens Wilms tumor 1 (WT1), transcript variant B, mRNA	32.2	32.2	76%	4.7	100%	G
gi 65507713 MM_000378.3	Homo sapiens Wilms tumor 1 (WT1), transcript variant A, mRNA	32.2	32.2	76%	4.7	100%	o.
gi 98986451 NM_023075.4	Homo sapiens metallophosphoesterase 1 (MPPE1), mRNA	30.2	30.2	71%	19	100%	G /
gi 46488931 NM_000629.2	Homo sapiens interferon (alpha, beta and omega) receptor 1 (IFNAR1), mRNA	30.2	30.2	71%	19	100%	o.
yi 62388889 NM4_001014797.1	Homo sapiens potassium large conductance calcium-activated channel, subfamily M, alpha member 1 (KCNBA1), transcript variant 1, mPNA	30.2	30.2	71%	19	100%	g.
11 26638649 MM_002247.2	Homo sapiens potassium large conductance calcium-activated channel, subfamily M, alpha member 1 (KCNMA1), transcript variant 2, mRNA	30.2	30.2	71%	19	100%	G
xi 24307982 NM_015050.1	Homo sapiens KIAA0082 (KIAA0082), mRNA	30.2	30.2	71%	19	100%	a
ri 56549110 NM_001008213.1	Homo sapiens optineurin (OPTN), transcript variant 4, mRNA	30.2	30.2	71%	19	100%	a
1 56549108 NM_001008212.1	Homo sapiens optineurin (OPTN), transcript variant 3, mRNA	30.2	30.2	718	19	100%	

Genomic sequences [show first]

gi|157812179|NW_001838029.2 Homo sapiens Chromosome 11 42.1 122 100% 0.005 100%

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Alignments

```
Length=2082
GENE ID: 7299 TYR | tyrosinase (oculocutaneous albinism IA) [Homo sapiens] (Over 100 PubMed links)
 Score = 42.1 bits (21), Expect = 0.005
Identities = 21/21 (100%), Gaps = 0/21 (0%)
 Strand=Plus/Plus
            AATÇCTGGAAACCATGACAAA 21
            AATCCTGGAAACCATGACAAA
Sbjct 980
>gi|148806860|ref|NR_003571.1| GLD Homo sapiens protein (peptidylprolyl cis/trans isom
4 (parvulin) pseudogene (LOC728758) on chromosome
Length=2366
GENE ID: 728758 hCG_1789710 | protein (peptidylprolyl cis/trans isomerase) NIMA-interacting, 4 (parvalin) pseudogene [Homo sapiens] (10 or fewer PubMed links)
 Score = 32.2 bits (16), Expect = 4.7 Identities = 16/16 (100%), Gaps = 0/16 (0%)
 Strand=Flus/Minus
Query 3
             CCTGGAAACCATGAC
       252
Length=1630
Score = 32.2 bits (16), Expect = 4.7 Identities = 16/16 (100%), Gaps = 0/16 (0%)
 Strand=Plus/Minus
Query 3
Shict 1021
                              1006
Length=1439
GENE ID: 84307 ZNF397 | zinc finger protein 397 [Homo sapiens]
(10 or fewer PubMed links)
```

Score = 32.2 bits (16), Expect = 4.7

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NCBI Blast: Nucleotide sequence (21 letters)
    Identities = USSN 10/738,413 Gaps = 0/16 (0%)
                                                               EXHIBIT 6
    Strand=Plus/Plus
                      GGAAACCATG
                  CCTGGAAACCATG
  >gi|65508003|ref|NM 024426.3| IIIGI Homo sapiens Wilms tumor 1 (WT1), transcript var
  Length=3029
    GENE ID: 7490 WT1 | Wilms tumor 1 (Homo sapiens) (Over 100 PubMed links)
   Score = 32.2 bits (16), Expect = 4.7 Identities = 16/16 (100%), Gaps = 0/16 (0%)
    Strand=Plus/Minus
  Ouerv 6
                 GGAAACCATGACAAA
  Sbict 2192
                                    2177
  >gi|65507907|ref|NM_024425.2| FAGE Homo sapiens Wilms tumor 1 (WT1), transcript var
  Length=2978
   GENE ID: 7490 WT1 | Wilms tumor 1 [Homo sapiens] (Over 100 PubMed links)
   Score = 32.2 bits (16), Expect = 4.7 Identities = 16/16 (100%), Gaps = 0/16 (0%)
   Strand=Plus/Minus
  Ouerv 6
                 TGGAAACCATGACAAA 21
                TGGAAACCATGACAAA
  Sbict 2141
  >q1|65507816|ref|NM 024424.2|  Homo sapiens Wilms tumor 1 (WT1), transcript var
  Length=3020
   GENE ID: 7490 WT1 | Wilms tumor 1 [Homo sapiens] (Over 100 PubMed links)
   Score = 32.2 bits (16), Expect = 4.7 Identities = 16/16 (100%), Gaps = 0/16 (0%)
   Strand=Plus/Minus
                TGGAAACCATGACAAA
  Ouerv 6
                                   21
                TGGAAACCATGACAAA
  Sbict 2183
 >gi|65507713|ref|NM_000378.3|  HOmo sapiens Wilms tumor 1 (WT1), transcript var
  Length=2969
   GENE ID: 7490 WT1 | Wilms tumor 1 [Homo sapiens] (Over 100 PubMed links)
   Score = 32.2 bits (16),
                            Expect = 4.7
   Identities = 16/16 (100%), Gaps = 0/16 (0%)
   Strand=Plus/Minus
  Ouerv 6
                TGGAAACCATGACAAA
               TGGAAACCATGACAAA
  Sbict 2132
 >gi|98986451|ref|mm_023075.4| U.EGIL Homo sapiens metallophosphoesterase 1 (MPPE1), m
```

Length=2806

GENE ID: 65258 MPPE1 | metallophosphoesterase 1 (Homo sapiens) (10 or fewer PubMed links)

Score = 30.2 bits (15), Expect = 19

EXHIBIT 6

Identities = 13/13 10/738,413 Strand=Plus/Plus

Query 5 CTGGAAACCATGACA 19
Sbjct 1105 CTGGAAACCATGACA 111